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APPLICATION OF ADVANCED PROPULSION TECHNOLOGY IN SPACE TRANSPORTATION

Abstract

The application of advanced propulsion technology in the space transportation system is analyzed. The marked characteristic of advanced propulsion is its high performance. Electrical propulsion and nuclear propulsion are the most common used types of advanced propulsion. The concept, classification and development of advanced propulsion technology are described in the paper. The benefit of using advanced propulsion technology in the space transportation system, for instance, orbital transfer, on-orbit service and deep space exploration, is analyzed. Due to the high performance of the advanced propulsion system, the efficiency and the adaptability of the space transportation system will be enhanced after using the advanced propulsion system.